

**REMARKS/ARGUMENTS**

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the amendments and remarks herewith, which place the application into condition for allowance. The present amendment is being made to facilitate prosecution of the application.

**I. STATUS OF THE CLAIMS AND FORMAL MATTERS**

Claims 1-16 are pending in this application. Claims 1, 6, 11, 12, 13, and 15, which are independent, are hereby amended. It is submitted that these claims, as originally presented, were in full compliance with the requirements 35 U.S.C. §112. No new matter has been introduced by this amendment. Support for this amendment is provided throughout the Specification and specifically at paragraphs [0161-0165] and Figure 22. Changes to claims are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103, or §112. Rather, these changes are made simply for clarification and to round out the scope of protection to which the Applicant is entitled.

**III. REJECTIONS UNDER 35 U.S.C. §102 and §103(a)**

Claims 1, 3, 6, 8, 11, 12, 13, and 15 were rejected under 35 U.S.C. §102(e) as allegedly anticipated by U.S. Patent No. 6,330,494 to Yamamoto (hereinafter, merely “Yamamoto”).

Claims 2, 7, 14, and 16 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Yamamoto in view of U.S. Patent No. 6,902,015 to Furuta, et al. (hereinafter, merely “Furuta”).

Claims 4 and 9 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Yamamoto in view of U.S. Patent No. 6,463,356 to Hattori, et al. (hereinafter, merely “Hattori”).

Claims 5 and 10 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Yamamoto in view of U.S. Patent No. 5,349,277 to Takahashi, et al. (hereinafter, merely “Takahashi”).

#### IV. RESPONSE TO REJECTIONS

Claim 1 recites, *inter alia*:

“...wherein the safety level of the detected safety level status is determined by comparing the detected safety level status to a plurality of threshold values and grouping the detected safety level status as a function of the comparison result,

wherein the safety level is a volume calculated as a function of a joint angle, a capability of the joint angle, a timing of a potential risk, and a planned action...  
(emphasis added)

Generally claim 1 relates to detecting a safety level of a joint in a robot, grouping that safety level into a general status, and based on that status, controlling any needed countermeasures to eliminate risks.

Yamamoto relates to detecting that the posture of the system main body has been shifted from the normal posture into an abnormal posture on the basis of the acceleration information obtained by the detection output of the acceleration sensor.

Applicants submit nothing has been found in Yamamoto that would teach or suggest the above-identified features of claim 1. Specifically, claim 1 recites that wherein the safety level is a **volume calculated as a function of a joint angle, a capability of the joint angle, a timing of a potential risk, and a planned action**. Indeed, the present claim requires

calculating a safely level represented as a volume based on : 1). A joint angle; 2) a capability of a joint angle; 3). a timing of a potential risk and 4). a planned action. Applicants submit that at least these three elements distinguish claim 1 from the prior art.

Therefore, claim 1 is patentable. Claims 6, 11, 12, 13, and 15 are also patentable for similar or somewhat similar reasons.

**V. DEPENDENT CLAIMS**

The other claims in this application are each dependent from one of the independent claims discussed above and are therefore believed patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

**CONCLUSION**

In the event the Examiner disagrees with any of statements appearing above with respect to the disclosure in the cited reference, it is respectfully requested that the Examiner specifically indicate those portions of the reference providing the basis for a contrary view.

In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are patentable and Applicants respectfully request early passage to issue of the present application.

Please charge any additional fees that may be needed, and credit any  
overpayment, to our Deposit Account No. 50-0320.

Respectfully submitted,  
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